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## **SPAIN IN THE INVESTMENT DEVELOPMENT PATH**

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## Abstract

This chapter explores the ownership, locational and internalization advantages of outward and inward spanish foreign direct investment (FDI) in order to test the predictions of the theory of the investment development path (IDP) in the case of a middle-income country. We first present the historical evolution of FDI since the mid-19th century, discussing the interplay between economic and political factors. Focusing on the 1986-1992 period, we conduct econometric analyses of the determinants of inward and outward FDI first by home/host country and then by industry. By country, we find the expected effects of income levels, R&D effort, trade intensity, and prior FDI history. Industry profitability, intangible assets, and revealed comparative advantage all predict higher FDI activity in an industry. Inward FDI confirms the IDP theory in its different aspects. Outward FDI also behaves as predicted, with most FDI activity going to countries with higher incomes. FDI to lower-income countries is mainly market-seeking while higher-income countries receive both asset-seeking and market-seeking Spanish FDI. In absolute terms, however, most spanish created assets are exploited in countries with a higher income, and internalization advantages or government incentives to R&D advantages play a very limited role.

## 1. Introduction

The case of Spain may be taken as representing a group of middle-income countries that, in spite of being early industrializers and having achieved relatively high standards of living, have not moved far in what has been termed the "investment development path" (Dunning and Narula 1994; Tolentino 1993:92-119). Dunning and Narula (1994) posit that the relationship between FDI, on the one hand, and the ownership, locational and internalization (OLI) advantages of countries and firms, on the other, changes according to the country's stage of economic development. In other words, the relative weights and roles of the three elements of the OLI or eclectic approach to international production vary as countries (and their firms) become richer, shift from natural to created assets, and become more embedded in the world economy (Dunning 1979, 1981, 1988; Agarwal 1980). Similarly to the rest of Europe's Western and Southern fringes (Ireland, Portugal, Italy, and Greece), inward foreign direct investment (FDI) in Spain has historically exceeded outward FDI by a wide margin. Presently, there are only timid (and sometimes contradictory) indications that the growth rate of outward FDI is accelerating, and that inflows and outflows are becoming more balanced as more Spanish firms try to exploit their ownership advantages abroad.

Studying the case of Spain is important because during the 1980s she has been one of the most dynamic countries in terms of economic growth and FDI activity, consolidating its position as an attractive host country and as an emerging source of FDI. In 1990 the ratio of outward-to-inward FDI stocks stood at 0.23, only slightly higher than in 1980 because net inward and outward flows increased at similar rates. In 1990 stocks of FDI were 13 times greater than ten years earlier. When compared to the other large EU countries, Spain seems to be approaching Italy in terms of the relative importance and growth of outward FDI, and the United Kingdom as far as inward FDI is concerned. As the country has developed economically over the last thirty years, Spain has attracted considerably



more inward FDI as a percentage of GDP than countries such as Germany, France or Italy, while investing abroad less (Table 1).

It is useful to compare the Spanish experience to those of the emerging economies of Europe, East Asia and Latin America that are playing increasingly important roles in FDI. Spain entered the decade of the 1980s with a ratio of inward stock to GDP lower than those for Portugal, Greece, Taiwan, and Brazil, equal to Mexico's, and higher than for Ireland, Chile, Korea or China. Spain's outward stocks in 1980 were much higher than for any of these countries. The Spanish trajectory during the 1980s stands out for the relatively rapid increase both in inward FDI (only China's has been faster, with Portugal's almost as fast), and in outward FDI (though Korea's and again China's have been faster). The only large emerging economy whose ratio of outward-to-inward FDI surpassed Spain's 0.23 in 1990 was Korea's 0.40. Relative to GDP, however, Spain's outward stock was in 1990 three times larger than Korea's, and its inward stock six times larger. Unlike Korea, but similarly to Italy, Spain features a much higher number of large service firms than large industrial firms (Table 1), which is reflected in the fact that most Spanish outward investment is in services while most of Korea's is in manufacturing or in trading of Korean manufactured goods.

In this chapter we first provide a historical summary of FDI patterns in Spain since the dawn of industrialization but focusing on the last thirty years. Attention will be devoted to the role of the government as well as to the economic and political cycle, both domestic and international. Using industry and country level data, we analyze the locational and ownership factors behind the evolution of inward and outward FDI since the country's entry into the European Union. Finally, we deal with the issues of the creation of assets through R&D, the internalization advantages of Spanish firms, and the future prospects for FDI.

## 2. Historical Overview

As is true of many other countries, the FDI cycle in Spain has historically been affected by domestic political events and upheavals as well as by the domestic and international economic situations. Liberal trade policies in the mid-19th century set the stage for the arrival of French, Belgian, and (after 1870) British investments in railways, mining, wineries, banking, insurance and public utilities. The return of protectionism and legal hindrances to foreign investment after 1891 slowed down the inflows. Meanwhile, Spanish investments abroad paled by comparison, with Cuba and Argentina as the major destinations (Tortella 1994:128-134; Nadal 1975:25-53, 87-121).

The 1920s witnessed the rise of American, German and French investment in electrical machinery, chemicals, autos, and telecommunications despite growing restrictions to foreign investment and trade (Campillo 1963). Over this early period of industrialization, Spain attracted foreign investment at increasing rates albeit with many ups and downs dictated by political, financial or economic crises. Most of these early flows of FDI had to do with the exploitation of either natural assets such as mineral deposits and unique agricultural products (wines in particular) or the underdeveloped market for transportation, communication, banking, insurance, and basic industrial goods. During the first two decades of the century, Spanish investment abroad was negligible except for the mostly speculative flows during World War I.

The Great Depression was shallower in Spain than elsewhere in Europe or America, but nonetheless devastating for FDI. The Civil War of 1936-39 represented a further setback to foreign investment and trade. After the war, the authoritarian government became dominated by a group of populist and staunchly nationalist economic policy-makers that implemented a series of foreign exchange controls and protectionist measures, and encouraged import-substitution investments in industry, while the Allied powers imposed a trade embargo that remained fully in place until the late 1940s. Foreign ownership restriction to a maximum of 25 percent, the overvaluation of the currency,

the intricate system of multiple exchange rates, mounting inflation, and economic stagnation provoked capital flight and close to zero inward FDI. It was with the liberalization and stabilization measures of 1959 that the pattern of increasingly high inward FDI and a trickle of outward FDI returned.

#### From Liberalization to EU Membership, 1959-1986

The liberal economic reforms of 1959 assigned foreign capital several roles to play: supplement the meager level of domestic savings, generate much-needed hard currency, and facilitate technology transfers (Varela Parache et al. 1974; Muñoz et al. 1978:45-60). The reformers also introduced changes in the protectionist regime: very steep tariff barriers were substituted for non-tariff barriers to trade. The punitive taxation of imports of industrial and consumer goods in a domestic market of considerable growth potential attracted inward FDI during the 1959-73 period. During the 1960s and early 1970s, inward FDI ranged between 0.15 and 0.59 percent of GDP, while outward FDI stayed under 0.1 percent of GDP. By the mid-1970s and despite the reduction in foreign activity in Spain, inward investment was still about 4 times higher than outward investment (Figure 1, top panel).

Spanish investments abroad in the 1960s had to do with (1) the access to raw materials (uranium, paper pulp, petroleum, various metals, fisheries), (2) the creation of distribution channels for Spanish fish, beverage, and food products, (3) construction and engineering projects, and (4) banking. Manufacturing FDI based on ownership advantages was not significant until the early 1970s. While manufacturing FDI was initially worth 20 percent of total outward FDI, by the mid-1970s it represented nearly 40 percent. Firms in the chemicals, paper, mechanical, electro-mechanical, textiles, and beverages industries invested in manufacturing activities abroad (COCINB 1973:25; Muñoz et al. 1978:352-353). Most analysts agree in that the government did little to facilitate outward FDI during this period. Exchange controls were too tight and state subsidies to help create distribution

channels abroad not very effective (Varela Parache et al. 1972; Moreno Moré 1975:106-107). One destination of intense Spanish outward FDI in the early and mid-1970s was the relatively depressed French department of the Eastern Pyrenees (the historic Roussillon), to the north of one of Spain's most developed industrial regions, Catalonia (Castellvi 1973; Raurich et al. 1973). Catalan firms in the textile, clothing, appliances, chemicals, beverages, and food-processing industries invested there to secure access to the European Common Market given that the 1970 Preferential Agreement with Spain failed to significantly reduce tariffs for labor-intensive manufactured goods. This specific location was selected for its geographical proximity and relatively lower labor costs than in other European areas.

The world economic crisis of 1973 and the transition to democracy after 1975 slowed down FDI in Spain. But by the late 1970s both outward and inward flows resumed their upward trend albeit with significant annual ups and downs until the mid-1980s (see top panel in Figure 1) due to the second oil shock, the 1981 world recession, and the initial uncertainty over the socialist electoral victory in 1982. In 1985 outward and inward flows represented 0.16 and 1.00 percent of GDP, respectively, more than three times the rates for the early 1970s. This upward trend since the mid-1970s was in part facilitated by changes in governmental regulations. The agencies that had tightly controlled foreign transactions since the 1940s were dismantled as the Ministry of Commerce assumed the authority over foreign investment authorization and control (De Erice 1975).<sup>1</sup>

### EU Membership and the FDI Boom

The 1986-92 period featured economic liberalization in the context of membership in the

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<sup>1</sup>In 1973-74 and 1976-77 procedures for inward FDI were clarified and simplified (Muñoz et al. 1978:45-60), while similar changes were introduced for outward FDI beginning with the first comprehensive legislation of 1973 and several liberalizing decrees in 1978 (De Erice 1975; Marín 1982; Aguilar Fernández-Hontoria 1985; Nueno Iniesta et al. 1981).

European Union (EU), rapid economic growth (by 1992 Spain's per capita income was 80 percent of the UK's), expansion of private enterprises in both manufacturing and services, huge inflows of FDI peaking at 4.2 percent of GDP in 1991, and the coming of age of outward FDI, towering also in 1991 at 1.2 percent of GDP (Figure 1, top panel). Membership in the EU has meant that both the origin of inward FDI and the destination of outward FDI accounted for by other EU countries has almost doubled to roughly two thirds of the total compared to between 30 and 50 percent prior to 1986 (Secretaría de Estado de Comercio 1993:228-233). Flows from the United States or to Latin America have fallen in relative terms, while destinations such as France, the Netherlands, and Portugal have become increasingly popular with Spanish firms. Outside of Europe, Morocco has recently attracted manufacturing investment. Japan remains a minor source or destination of FDI (Portillo 1994).

Most of the momentous surge in outward FDI has been in services, both financial and non-financial (utilities, air transportation, telecommunications). Outward manufacturing FDI as a percentage of GDP trebled since the mid-1970s but has yet to reach the 0.3 per cent mark (see Figure 1, lower panel), and the total share of outward manufacturing FDI has fallen from an all time high of 46 percent in 1977 to 11 percent in 1993. Acquisitions have been more common than greenfield operations (Figure 2, top panel). Since 1988 Spanish acquisitions abroad have mostly taken place in Latin America and the EU, targeting firms in utilities, banking, plastics, and oil and gas (Durán Herrera 1992:227-228). The goals sought by outward investments are, in decreasing order of importance, market access, technological assets, cheap factors, and, lastly, investments raw materials procurement (Figure 2, lower panel). By comparison, between 1975 and 1978 outward factor or raw materials seeking FDI was four times higher than market-seeking FDI (Nuevo Iniesta 1981:152-153).

Despite the unprecedented volume of outward FDI since 1986, inward investment stole the show, with much of its fast growth taking place through acquisitions of Spanish firms (Figure 3). The

most active acquirors were firms based in the UK and France, while the most targeted industries were food, beverages, chemicals and pharmaceuticals (Durán Herrera 1992:227). One important difference with outward FDI referred to the relative importance and growth of manufacturing investment.

Inward manufacturing FDI has increased since the mid-1980s although less rapidly than total inward FDI (see Figure 1, lower panel), and its share of the total has fluctuated annually between 35 and 65 per cent. Given that the Spanish economy was becoming less protected, many of these acquisitions had to do with other kinds of barriers of entry defined at the industry level of analysis, an explanation that we explore further in the following sections.

### **3. Outward Foreign Direct Investment**

This section presents a more detailed analysis of the type of FDI transactions that have taken place; their breakdown by major country of origin and/or destination; and their implications for a better understanding of where the Spanish economy is in the investment-development path. The increase in FDI activity in the last five years occurred both in outward and inward direct investment. Although the annual rate of increase in both types of FDI between 1988 and 1992 has been similar (24% for outward FDI and 23% for inward FDI), inward direct investment started at a much higher level and, as a result, the Spanish capital account has worsened during this period.

The first task of this section is to empirically analyze the relationship between the types of FDI pursued by Spanish companies and the economic conditions in the respective host countries. The investment development path has clear predictions not only on the pattern of FDI activity a country will follow through its process of economic development, but also on the pattern of its FDI flows in terms of the host countries, the economic purpose of the investment and the mode in which the investment is most likely to take place. We will use detailed data on Spanish FDI activity during the period 1988 to 1992 to contrast those implications empirically. We will first analyze Spanish outward

FDI activity in each country according to its economic purpose. Later we will analyze the differences across industries in the mode FDI activity takes place.

The level of development of the host country is a major predictor of the type of inward investment. A less developed country does not have a high level of created assets and its comparative advantage lies in its endowment of natural assets (such as raw materials, or cheap factors of production). As a country develops, both its stock of created assets and its stock of capital increase. The increase in the stock of capital raises the marginal productivity of natural assets and the relative price of these assets. This process causes a shift in inward FDI from seeking natural assets towards pursuing created assets. We therefore expect a country's per capita income to be negatively related to the percentage of factor seeking FDI into the country and positively related to the percentage of asset-seeking investment.

The existence in the host country of created assets not currently available in the home country induces asset-seeking FDI. The amount of created assets in a country is positively correlated with the country's level of development and its level of scientific activity. We expect countries with higher levels of scientific activity to have a relatively higher level of asset-seeking inward FDI. We use two measures of scientific activity as proxies for the existing level of created assets in the host country. The number of scientists and engineers in the country measures the amount of inputs a country devotes to R&D activity while the number of patents in force in each country is a measure of the country's R&D output.<sup>2</sup>

Existing trade flows will also determine the purpose of FDI activity. Companies are more likely to invest in foreign marketing and distribution for their products in countries that represent an

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<sup>2</sup>Clear problems exist with both of these measures: (1) certain created assets (such as brand names, organizational advantages, or know-how from traditional industries) are not likely to be highly correlated with these two measures ; (2) regulation on industrial property rights differs widely across countries reducing the incentive to register patents; and (3) definitional problems exist across countries for each measure.

important present and/or potential market for them. Therefore, we expect the current level of trade flows between the host country and Spain to be a positive predictor of the percentage of inward FDI that is for market seeking activities.<sup>3</sup> We also expect certain countries to have a higher probability of being served without market seeking activities. Factors to favor this effect will be geographical proximity to Spain and high levels of international trade.<sup>4</sup>

The data compiled by the Spanish Economic Ministry distinguishes FDI transactions according to their economic purpose. Investors are required to classify their investment within one of the following categories: marketing and distribution, production using Spanish technology, production without using Spanish technology, sourcing of raw materials, joint ventures, holdings, and others. We grouped these investments according to the IDP framework as follows: marketing and distribution are defined as market-seeking investments; those investments with the purpose of sourcing raw materials and of manufacturing overseas using Spanish technology are factor-seeking investments; and an investment is defined as asset seeking when its purpose is the production without using Spanish technology or the establishment of an overseas joint venture.<sup>5</sup>

The lower panel of Figure 2 describes the breakdown of outward FDI according to these different economic purposes. Market seeking investments have grown throughout this period signalling the increase in export orientation of Spanish companies. The other two types of foreign

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<sup>3</sup> High protection by a host government can also increase market-seeking FDI activity in production facilities as a way around protection. As explained below, we cannot distinguish this type of investment in our data.

<sup>4</sup>Notice that trade to GDP ratios are not necessarily related to degree of protection. An obvious example is the US that has low rates of protection and a low ratio of international trade to GDP.

<sup>5</sup>This classification although close to the economic phenomena intended to capture do have some problems. For instance, the market seeking investment category does not include the possibility of investments in manufacturing production in a country due to the country's high level of protectionism. This case would likely be an investment in production using Spanish technology which we are classifying as a factor seeking investment instead of market seeking.



investment present a much smaller amount of overall FDI activity and their levels have remained practically constant. Financial investments in the form of holdings and other financial transactions accounted for approximately 40% of the total outward investment flow during this period (see Figure 2). Financial investments are very sensitive to short run fluctuations in returns and to regulatory differences across countries. As such, they are hard to analyze in the context of the investment development framework. Therefore, we will restrict our analysis to the other four types of investment.

Table 2 shows the results of correlating the percentage of total Spanish outward FDI flows to each host country that is asset-seeking, market-seeking or factor-seeking with the independent variables defined above.<sup>6</sup> The first three columns report the results of regressions for which the dependent variable is the annual outward FDI flow by purpose to each host country as a percentage of total Spanish FDI to that country. In the last three columns the dependent variable was defined as the ratio of the annual value of each type of Spanish FDI into the host country divided by that country's GDP. The goal is not to understand the country variables that determine the amount of FDI the country receives for each purpose but to determine what country characteristics make it more likely to be a destination of a certain type of FDI, i.e. the percentage of Spanish FDI in the country that has a given economic purpose.

The first column of Table 2 confirms the hypothesis that Spain's outward investment in search of created assets will be more likely in those countries with a comparative advantage in those assets. The results show both per capita income (GDPCAP) and the number of scientists (SCI) in the host country to be a positive and significant influence on the percentage of Spanish FDI that is asset seeking. We also ran this specification substituting the input measure of scientific activity by an output measure (the number of granted patents in the host country) and the results were similar. Both

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<sup>6</sup>The specific definitions of the variables used and their sources are included in the data appendix.

the level of development and the level of scientific activity are positive predictors on the relative importance of asset seeking investments.

The results for market seeking investments and factor seeking investments are also partly consistent with the theory. Market seeking investments are relatively bigger for those countries with which Spain has a higher level of international trade (SPTRADE). We also find the existing stock of Spanish FDI in those countries (SFDIGDP) to be negatively correlated with the importance of market seeking activities. Factor seeking investments are likely to occur in countries with which Spain does not have a high level of international trade and countries with a low level of created assets. Recall that factor seeking FDI include investments in raw material production and in cheap factors of production. Therefore, these investments should take place in those countries with a relative advantage in natural rather than created assets. The worldwide stock of FDI in the host country (WFDIGDP) is only significant for factor seeking investment.

The last three columns of Table 2 redefine the dependent variable as the ratio of each type of investment relative to the host country's GDP. This specification avoids the implicit correlation among the dependent variables in the first three columns due to the restriction that the three dependent variables must sum to 100. We also believe this normalization to be more consistent with the way in which the exogenous variables have been defined. However, we expect the level of Spanish FDI activity to be higher in certain countries for geographical, regulatory and historical reasons. Therefore, we also include as exogenous variables two dummy variables to control for OECD countries (OECD) and for Latin America (LATIN).<sup>7</sup> Both dummies are positive as expected and their coefficients are not reported in the table.

The results from these regressions confirm the evidence presented above. Asset seeking

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<sup>7</sup>A third group of countries, the tax heavens, was dropped from the analysis due to the distortions caused by their tax regimes.

investments are more likely to occur in trade related countries with a high level of scientific activity, while market seeking activities occur in countries with a low stock of inward FDI to GDP and with high levels of international trade with Spain. The results for factor seeking investment are weak. Only the level of Spanish FDI stock in the country (SFDIGDP) is significant with a positive sign.<sup>8</sup>

We also decided to split the sample by the mode in which investment takes place in 27 manufacturing industries.<sup>9</sup> We can distinguish whether the investment involved the establishment of a new company by the foreign investor or the acquisition or the establishment of a long run relationship with an existing firm in the country.<sup>10</sup> Asset seeking investments have the goal of acquiring intangible created assets (such as know-how, brand names, or name recognition). Market transactions for these assets are often more costly than intrafirm transactions (Caves 1982). This is one of the main reasons for internationalization. Therefore, we would expect this investment to be more likely done through the acquisition of an existing firm in the host country. On the other hand, when the intangible asset is the property of the investing company, i.e. FDI is of the factor or market seeking type, such investment is more likely to be a greenfield investment.

Table 3 reports the results of these industry regressions by mode of investment. The dependent variable in the first column is the total value of investment in an industry and year while in

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<sup>8</sup>We decided to split the factor seeking group between investments in search for raw materials and investments to produce with Spanish technology. We also included as a regressor the percentage of exports of each country that are minerals and raw materials. As expected, this variable was a significant positive predictor of the level of FDI seeking raw materials.

<sup>9</sup>Ideally one would look at the importance of each form of FDI transaction to each destination country. However, data restrictions do not allow us to identify the transactions in such manner.

<sup>10</sup>The raw data classified FDI transactions as: creation of a new company, capital increase in an existing investment, acquisition of an existing domestic company, and a long term loan with the intention of establishing a management relationship. We aggregate the first two groups and define the aggregate as greenfield investments; we also aggregate the last two and define the new measure as acquisitions of domestic firms. Although a capital increase can be in a domestic company (i.e. an acquisition) as well as in an already foreign owned company (greenfield) we cannot distinguish between the two. We decided to include all capital increases as greenfields.

the second column the dependent variable is the percentage of investment for that year that took place in that industry. Finally, the last two columns use the percentage of investment in each industry and year that were greenfield investments and the percentage that were acquisitions as the dependent variables.

The first two specifications will help us determine which type of industries are more active in overseas investment. The literature on FDI has consistently found that highly profitable industries (PRFRAT) and those with a high level of intangible assets have more FDI activity. We measure intangible assets using two standard measures (see Caves 1982): the ratio of advertising expenditures to production (PUBRAT), and the ratio of R&D expenditures to production (RDRAT). We only report the results using PUBRAT due to data problems when using the R&D ratio.<sup>11</sup> A higher PUBRAT implies a higher level of created intangible assets and a larger potential benefit from internationalization. The results in the second column are practically identical: industries with a higher percentage of FDI activity are industries with high levels of profitability and with large intangible assets. In this specification, also the measure of revealed comparative advantage (REVADV) comes positive and significant suggesting that export oriented industries also tend to have large FDI activity.

The distinction between greenfield or acquisitions does not provide, however, much information. In both specifications none of the exogenous variables are ever significant (except for the 10-firm concentration ratio, C10 for greenfield investments). The null hypothesis that all the coefficients of the independent variables (except those of the industry dummies) are equal to zero and the null hypothesis could not be rejected with an F-test.

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<sup>11</sup>Missing observations in the R&D data significantly reduces the number of observations in the sample. Also, the R&D data are not directly comparable to the industry classification in the FDI data set. However, when we include this variable in the regression its coefficient is always positive but not always significant.

#### 4. Inward Foreign Direct Investment

The rapid increase in inward FDI flows into Spain has been mainly due to non-manufacturing FDI, i.e. finance and service oriented industries, especially towards the end of the period (see Figure 1). Although manufacturing FDI consistently increased after 1986, it did so at a much lower rate than overall FDI. Inward manufacturing FDI has increased at a much faster rate than outward manufacturing FDI and by 1993 inward manufacturing flows were nine times larger than outward flows. Given the importance of inward manufacturing FDI activity it will be useful to have a better understanding of the country of origin of FDI, its industry composition and the form in which FDI takes place. Therefore, we will perform below an analysis similar to that presented in the previous section for outward FDI.<sup>12</sup>

Table 4 reports the results of regressing Spanish inward FDI flows from each home country, broken down by the mode of investment as a function of the characteristics of the home country.<sup>13</sup> As in table 3 we report the results using the following dependent variables: total annual investment by home country (TOTAL), percent of each home country's investment in total annual investment (PANINV), and percentage of the home country's outward FDI flow to Spain that was greenfield (PGREEN) or acquisitions (PACQU).

The results for total investment show that countries with a high income per capita (GDPCAP) and countries relatively well endowed with created assets (SCI) are less likely to perform high levels of FDI in Spain. These countries will incur FDI when searching for factors in factor-endowed countries or when seeking created assets from equally or more developed countries. To the extent

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<sup>12</sup>Unfortunately, data limitations do not allow us to distinguish inward FDI by its economic purpose.

<sup>13</sup>The home country is the country of residence of the ultimate beneficiary of the investment. We also perform similar regressions by country of immediate origin. In those regressions we decided to exclude certain countries (such as tax heavens, the Netherlands, etc...) due to differences in taxation and government regulations. Due to the possible noise introduced by this selection criteria we decided not to report those results here.

that Spain is an intermediate country in the IDP, its level of created assets is still too low to appeal to most developed countries while, at the same time, Spain has lost comparative advantage with respect to less developed countries in terms of cheap factors of production. Notice that in this regression both dummies OECD and LATIN are positive and significant. If OECD is dropped from the regression then GDPCAP becomes positive and significant indicating the attractiveness of Spain as a destination of FDI from developed countries for locational reasons, although not necessarily from the developed countries with the highest GDP per capita, GDPCAP. We also find the intensity of trade between the home country and Spain (SPTRADE) and the worldwide FDI stock of the home country (OUTFDI) to be positive predictors of the amount of inward FDI originating from those countries.

The last two columns of Table 4 report the results of splitting the amount of investment by whether the investment was a greenfield or an acquisition. Since the variables here are expressed as percentages of each form of investment over total home country investment in Spain, we drop the two dummy variables (OECD and LATIN) from the specification. As was the case for outward FDI the results from these specifications are not very revealing. The only significant variable is the level of the country's per capita income which has a positive effect for acquisitions and a negative effect for greenfield investments. These results suggest that rich countries are more likely to enter FDI through the purchase of existing assets in Spain.<sup>14</sup>

Table 5 reports the results of regressing inward FDI by destination industry. As was the case with outward FDI, inward FDI tends to be most intense in manufacturing industries with high levels of profitability (PRFRAT), high levels of intangible assets (PUBRAT), and relatively high export orientation (REVADV). Also, as before, the results are incapable of providing information on the type of industries that are more likely to receive FDI through greenfield investments rather than

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<sup>14</sup>Recall the high level of acquisition activity that has taken place in this period (see Figure 3, above). Most of these acquisitions were done by companies from OECD countries.

through acquisition of existing firms.

## 5. R&D and Asset Creation

Countries and firms can upgrade assets and increase the marginal productivities of production factors by investing in infrastructure, support industries, labor skill formation, and R&D. During the 1980s private firms have increased investments in labor skills and product differentiation, while the government has invested heavily in infrastructure and professional training. R&D efforts, however, have not been enough to allow Spain to narrow the gap with the more advanced countries. In particular, the role of the government in R&D has not been as forceful as in infrastructure and education. As a result, technology-created assets in Spain play only a minor role in FDI.

Spain is suffering from a yawning gap between payments and receipts for patents, royalties and fees. While since 1960 technological receipts have oscillated between 0.02 and 0.11 per cent of GDP, payments have escalated from 0.17 per cent in 1960 to 0.51 in 1992, roughly one-sixth of FDI inflows during that year (Figure 4). Domestic R&D expenditures have been growing faster than net payments for patents, royalties and fees. For every peseta of net payments to other countries in 1980 Spain spent domestically two pesetas on R&D. By 1991 the ratio was one to three, still far from the levels of the more advanced countries (INE 1994:30). The vast majority of the payments go to other OECD countries (60 per cent to the EU and 20 per cent to the United States) while 80 per cent of the receipts come from the OECD (50 per cent from the EU and 25 per cent from the United States), the remainder mainly from Latin America, and to a lesser extent, South East Asia and the Magreb (Durán Herrera 1992:242). The fact that 80 percent of receipts come from countries with a per capita income equal to or higher than Spain's is at odds with the IDP framework.

R&D expenditure in Spain has more than quadrupled during the 1980s. But the contribution of the government to total R&D expenditure has fallen from 52 per cent in 1980 to 46 per cent in

1991, while foreign funds have grown from 1 to 6 per cent, and the share of private firms has remained constant. Despite the overall upward trend, in 1991 Spain spent on R&D a mere 0.87 per cent of its GDP, the lowest rate in the OECD except for Greece, Portugal and Turkey (INE 1994:30, 34). That same year, Spain ranked nineteenth in terms of cumulative patents granted in the United States (U.S. Patent and Trademark Office 1992:A2), closely followed by countries such as South Africa, Hungary and the former Czechoslovakia, and not much ahead of South Korea, Mexico, and New Zealand.

Unlike Portugal, Greece, and Ireland, however, Spain has managed to develop three areas of technological strength, as identified in a recent OECD study (Archibugi and Pianta 1992:76-77), namely, fabricated metals, industrial machinery, and motor vehicles, primarily auto parts. Neither funding from the government nor from abroad have contributed significantly to developing distinctive technological capabilities in machinery and motor vehicles: the firms in these industries account for 90 and 98 percent, respectively, of all R&D expenditure. By contrast, as much as 18 per cent of R&D expenditures in fabricated metals comes from the government (INE 1994:64). Finally, multinational firms operating in Spain or Spanish firms controlled by foreign investors in a proportion higher than 50 per cent invest in R&D to a greater extent than the rest, and they do so almost exclusively through internally generated resources with little or no governmental funding (INE 1994:95-96).

## **6. Internalization Advantages**

The theory of the investment development path argues that the higher the economic development of a country and the more advanced it is along the investment path, the more firms are able to exploit whatever ownership advantages they have internally rather than through licensing or joint ownership arrangements. Unfortunately, data limitations to test this aspect of the theory in the



case of Spain are tremendous. Official statistics on receipts for patents, royalties and fees from abroad do not specify whether the payer is affiliated with a Spanish parent company or not. There is some limited and outdated information on ownership of the foreign subsidiaries of Spanish companies. Authorizations for new outward FDI between 1975 and 1978 show that 45 percent of the subsidiaries were majority owned. This compares with overall 65 percent majority ownership in the 1986 benchmark survey on FDI stocks. It seems, therefore, that Spanish firms have been increasing their ownership share of foreign subsidiaries over time. The rise in majority ownership between the mid-1970s and the mid-1980s has been most remarkable in the case of subsidiaries located in the EU and the US (from about 20 to over 70 percent of all subsidiaries), while those located in Latin America have actually become less majority owned (see panel A of Table 6). These levels of majority ownership are not much lower than the ones reported by Encarnation (1994:210) for the subsidiaries of US, EU and Japanese multinationals.

Another way of measuring internalization is to examine whether exports flow into foreign markets through proprietary distribution channels or not. Taking into account Spanish-based parent firms with no more than 75 percent of foreign capital, the ratio of exports through proprietary channels to total Spanish exports has doubled from 7.3 percent in 1986 to 14.8 percent in 1992. The more distant the foreign market (e.g. US and Latin America compared to Europe), the higher the degree of internalization (panel B of Table 6). In general, levels of internalization of exports are much lower than for US, EU and Japanese multinationals (Encarnation 1994:217). Of all Spanish exports originating from firms with no or less than 75 percent foreign ownership, 23 percent are sold through proprietary distribution channels. Firms that do have proprietary distribution channels sell 61 percent of their exports through them (panel C of Table 6).

Finally, no information exists on intra company shipments of goods other than those for sale through foreign distribution subsidiaries. The fact that outward factor and raw material seeking FDI

has remained flat while most of the recent increase has been accounted for by investments in holdings or market access (see, again, lower panel of Figure 2) indicates that Spanish firms with investments abroad have not generated the complex patterns of transfers of intermediary and final goods between subsidiaries and parent company or between subsidiaries located in different countries so characteristic of the largest multinational corporations (Encarnation 1994:221-226).

## **7. Explanations for FDI Growth: Economics and Government Policies**

What has made Spain such an attractive destination for FDI? This question may be answered from a variety of perspectives. First, time-series analyses provide solid macroeconomic evidence in favor of the market-seeking hypothesis while finding no support for the impact of relative wage and exchange rate levels (Bajo 1991; Bajo and Sosvilla 1992; García de la Cruz 1993). Attracted by the size and growth of the market, foreign investors have flocked to Spain during periods of relative political tranquillity, price stability, and economic and trade liberalization. Second, there is some evidence from the case of the European affiliates of US multinationals that, despite the similar level of sales per employee, they obtain higher returns in Spain than elsewhere in Europe (García de la Cruz 1993).

Third, upgraded assets such as skilled labor, support industries and infrastructures must be playing an increasingly important role given that, simultaneously, Spain has engaged in trade liberalization, reached industrial productivity levels comparable to other EU countries with high FDI inflows (e.g. the UK), and allowed labor costs to rise (United Nations 1992, table 2.7). Yet inward FDI in non-financial services and in manufacturing has continued to pour into the country.

Fourth, inward FDI is now tilted more towards acquisitions than greenfield investment (Figure 3). Why have the most active foreign investors (i.e. EU firms making acquisitions) moved into an increasingly open economy to manufacture or to render non-financial services? In the case of

non-financial services, foreign investors have acquired assets in order to overcome industry-level barriers to entry and to gain market share quickly. As regards manufacturing investments, most foreign firms have come to Spain not only to sell in an expanding domestic market (which is by now fairly open to competition from abroad) or to overcome industrial barriers to entry but also to locate value-added activities in the context of a world economy tending towards globalization. Furthermore, foreign firms are finding in Spain upgraded assets such as a skilled work force, clusters of support industries stimulated in part by prior inward FDI, and an improved infrastructure that allows them to use a Spanish location as an export base (e.g. in autos, electronics, electrical appliances, and chemicals). Meanwhile, successful Spanish firms have barely shifted production abroad in response to domestic cost increases for the same reason: the continued, yet changing, locational advantages of Spain. Finally, multinational firms in mature industries (e.g. food processing, beverages, auto parts) have been acquiring Spanish firms with an international presence not only to gain market share in Spain but also in other EU countries in which the Spanish firms had a sizeable presence.<sup>15</sup>

Given the tone of our discussion thus far, the political economy of inward foreign investment in Spain can only offer a straightforward explanation of the role of the government. In the short run, policies tending towards political and economic stabilization, liberalization of foreign investment legal regimes, and market opening have been the direct contributors to the FDI boom. The stories of the 1960s and of the 1980s are testimony to this. Arguably, the comparatively smooth transition to democracy in the late 1970s, the containment of inflation during the 1980s, and EU membership in 1986 have been critical to continued foreign inward investment. Beyond the short run, policies such as the impressive investments in infrastructure, education, and worker training since 1983 are steadily

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<sup>15</sup>Recently, Allied-Lyons of the UK has acquired Pedro Domecq, the world's eighth-largest beverages group, Exide Corp. of the US has taken over Tudor, the third largest battery manufacturer at the European level, and the Koipe-Elosúa olive oil and foods group has come under the control of Italy's Ferruzzi.

upgrading the economic advantages of Spain. In the short term these government policies have contributed to economic growth and thus indirectly to FDI, but they have also tended to feed the cycle of deficit and inflation. As far as outward FDI is concerned, there have been some attempts to protect the international positions of state-owned enterprises such as Iberia (the flag air carrier), Telefónica de España (telecommunications), and CASA (aircraft construction) as providing a reserved impetus for the internationalization of Spanish firms. While the expansion of Telefónica and CASA abroad have in fact generated much enthusiasm and praise, the small, but successful, group of Spanish multinationals in industries such as textiles and clothing, food and beverages, luxury goods, electrical appliances, industrial machinery, and auto parts have rarely taken advantage of governmental programs.

### 3. Discussion and Conclusions

The challenge of testing Dunning and Narula's theory with the case of Spain is precisely that since 1960 the country has followed a process of rapid economic development with increasing internationalization of its economy. While over this period Spain has turned itself into a prosperous industrial and service economy, few Spanish firms are yet capable of drawing on their ownership and internalization advantages to exploit international opportunities abroad. Inward FDI grew at a much higher rate than a relatively modest flow of outward FDI. Government policies directed towards encouraging the international integration of the Spanish economy and upgrading the existing infrastructure have stimulated this increasing flow of FDI.

The case of Spain confirms many of the dynamics typical of countries in the second stage of the international development path. Dunning and Narula (1994) characterize this stage as one in which inward FDI is attracted by natural assets (raw materials, cheap labor), a growing domestic market and the development of technological advantages in certain support industries clustered around primary

industries. These phenomena occurred in the Spanish case.

The evolution of outward direct investment also shows a number of patterns that coincide with the predictions of the IDP paradigm. Most of Spanish outward investments are market seeking. OECD member countries receive the majority of the value of these investments. However, the percentage of total Spanish FDI that is market seeking is higher for countries with lower per capita incomes and with current high levels of international trade with Spain. Asset seeking investments take place in countries with higher levels of economic and technological development. However, we find that most of the returns to Spanish created assets come from investments in countries with development levels equal to or higher than Spain's and not from countries at a lower development stage like the paradigm suggests. Also, direct government incentives to R&D and internationalization do not appear to have a direct impact on the level of internationalization of these assets.

The experience of Spain since the mid-1980s shows a fast increase in inward FDI even as the locational advantages of natural assets have eroded rapidly. The importance of a growing domestic market partly explains this growth in inward FDI. Even more important has been the acquisitions of companies with established domestic and international positions in their industries or with upgraded assets developed domestically or induced by inward FDI, as in the case of support industries like auto parts. These massive foreign acquisitions will curtail the international expansion of domestically-owned firms. Given this acquisition activity, we would expect future outward FDI flows to increasingly originate from a foreign controlled Spanish firm as part of the overall strategy of the foreign parent company. Outward investment by domestically-owned companies will be unlikely to reach the levels of inward FDI activity suggested by further stages of the IDP paradigm. This situation is typical of middle-income countries such as Spain not because they entirely lack ownership or internalization advantages that they could exploit abroad, but because the existence of both a large, developed and internationally integrated market, and a plethora of strategic business assets in the

private and state-owned sectors, tend to keep the flows of inward FDI at levels and rates of growth higher than those for outward FDI.

## References

- Agarwal, Jamuna P. 1980. "Determinants of Foreign Direct Investment: A Survey." Weltwirtschaftliches Archiv 116(4):739-773.
- Aguilar Fernández-Hontoria, Eduardo. 1985. "Cinco años de liberalización de las inversiones directas españolas en el exterior, 1980-1984." Información Comercial Española (August-September):51-70.
- Archibugi, Daniele, and Mario Pianta. 1992. The Technological Specialization of Advanced Countries. London: Kluwer Academic Publishers.
- Bajo, Oscar. 1991. "Determinantes macroeconómicos y sectoriales de la inversión extranjera directa en España." Información Comercial Española 696-697(August-September):53-74.
- Bajo, Oscar, and Simón Sosvilla. 1992. "Un análisis empírico de los determinantes macroeconómicos de la inversión extranjera directa en España, 1961-1989." Moneda y Crédito 194:107-148.
- Campillo, Manuel. 1963. Las inversiones extranjeras en España, 1850-1950. Madrid: Manfer.
- Castellvi, Miguel. 1973. "Cataluña abre la puerta del Rosellón." Actualidad Económica (June 30):8-13.
- Caves, Richard. 1982. Multinational Enterprise and Economic Analysis. Cambridge: Cambridge University Press.
- COCINB. 1973. Las inversiones españolas en el exterior. Barcelona: Cámara Oficial de Comercio, Industria y Navegación de Barcelona.
- De Erice, Sebastián. 1975. "Comentarios al régimen legal de las inversiones españolas en el extranjero." Información Comercial Española 499(March):77-90.
- Dunning, John H. 1979. "Explaining Changing Patterns of International Production: In Defence of the Eclectic Theory." Oxford Bulletin of Economics and Statistics 41:269-296.
- Dunning, John H. 1981. "Explaining the International Direct Investment Position of Countries: Towards a Dynamic or Developmental Approach." Weltwirtschaftliches Archiv 119:30-64.
- Dunning, John H. 1988. Explaining International Production. London: Unwin Human.
- Dunning, John H. and Rajneesh Narula. 1994. Transpacific Foreign Direct Investment and the Investment Development Path: The Record Assessed. South Carolina Essays in International Business No. 10. Columbia, South Carolina: Center for International Business Education and Research, University of South Carolina.
- Durán Herrera, Juan José. 1992. "Cross-Direct Investment and Technological Capability of Spanish Domestic Firms." In John Cantwell, ed., Multinational Investment in Modern Europe.

Aldershot, England: Edward Elgar, pp. 214-255.

Encarnation, Dennis. 1994. "Investment and Trade by American, European, and Japanese Multinationals across the Triad." In Mark Mason and Dennis Encarnation eds., Does Ownership Matter? Oxford: Oxford University Press, pp. 205-227.

García de la Cruz, José Manuel. 1993. Empresas multinacionales y economía española. PhD Thesis Series No. 141/93. Madrid: Universidad Complutense de Madrid.

González, Roberto. 1989. "Las inversiones españolas directas e inmobiliarias en el exterior durante 1988." Boletín Semanal de Información Comercial Española (February 27-March 5):869-879.

INE. 1994. Estadística sobre las actividades en investigación científica y desarrollo tecnológico (I+D) 1991. Madrid: Instituto Nacional de Estadística.

Marín, Juan Pedro. 1982. "La inversión española en el exterior." Papeles de Economía Española 11:163-184.

Martín, Carmela, and Francisco J. Velázquez. 1993. "El capital extranjero y el comercio exterior de las empresas manufactureras." Papeles de Economía Española 56:221-234.

Ministerio de Comercio. 1993. Sector exterior en 1992. Madrid: Ministerio de Comercio.

Ministerio de Comercio. 1994. Sector exterior en 1993. Madrid: Ministerio de Comercio.

Moreno Moré, Juan Luis 1975. "Quince años de inversiones españolas en el extranjero." Información Comercial Española 499(March):91-107.

Moreno Moré, Juan Luis 1982. "La inversión extranjera en España." Papeles de Economía Española 11:141-162.

Muñoz, Juan, Santiago Roldán, and Angel Serrano. 1978. La internacionalización del capital en España, 1959-1977. Madrid: Edicusa.

Nadal, Jordi. 1975. El fracaso de la revolución industrial en España, 1814-1913. Barcelona: Ariel.

Nueno Iniesta, Pedro, Nieves Martínez Lapeña, and José Sarle Guiu. 1981. Las inversiones españolas en el extranjero. Pamplona: Ediciones Universidad de Navarra.

Portillo, Luis. 1994. "Las empresas japonesas en Europa ante el mercado único y la recesión." Boletín Económico de ICE 2411 (May 2-8, 1994):1139-1145.

Raurich, José María, Enrique Seoane, and Ferrán Sicart. 1973. El marco económico de las inversiones catalanas en el Rosellón. Barcelona: Condal de Estudios Economicos.

Secretaría de Estado de Comercio. 1989. Censo de inversiones directas de España en el exterior a diciembre de 1986. Madrid: Secretaría de Estado de Comercio.



- Tolentino, Paz Estrella E. 1993. *Technological Innovation and Third World Multinationals*. New York: Routledge.
- Tortella, Gabriel. 1994. El desarrollo de la España contemporánea: Historia económica de los siglos XIX y XX. Madrid: Alianza.
- United Nations. 1992. UN Handbook of Industrial Statistics 1992. New York: United Nations.
- United Nations Conference on Trade and Development. 1993. World Investment Report 1993. New York: United Nations.
- United Nations Conference on Trade and Development. 1994. World Investment Report 1994. New York: United Nations.
- U.S. Patent and Trademark Office. 1992. Industrial Patent Activity in the United States. Part I: Time Series Profile by Company and Country of Origin 1969-1991. Washington, DC: U.S. Patent and Trademark Office.
- Varela Parache, Fernando. 1972. "Las inversiones españolas en el extranjero." Información Comercial Española 9(104) (August):59-64.
- Varela Parache, Fernando, and José Rodríguez de Pablo. 1974. "Las inversiones extranjeras en España, 1959-1974: Una vía al desarrollo." Información Comercial Española 493(September):13-20.

## DATA APPENDIX

The data of outward and inward FDI reflect transactions in which the foreign investor controls at least 20% equity interest in the participated company (10% starting in 1993) or has effective control over the management of the participated foreign company. The data also include as FDI long-term loans to or from foreign companies with maturity longer than five years and with the goal of establishing lasting economic links. The data reflect notification of the intent to invest not of the actual investment. The company has after its notification of the intention to invest up to six months to do so. Therefore, an investment might be classified in a calendar year prior to the year in which the investment took place. Also, to the extent that a notification does not end in a transaction, FDI flows may appear in the data that never took place. The overall correlation between notification and actual investments is very high (cite???). Finally, FDI transactions appear in the data (such as reinvested earnings, or contributions in physical assets) that did not result in international capital flows. Therefore, differences exist between our measure of FDI and the values that appear in the capital accounts.

### *Variable Definitions:*

$PASSTSK_i$  = percentage of the annual value of Spanish outward FDI in host country  $i$  that had the purpose of either producing in country  $i$  using non-Spanish technology or starting a joint-venture with a foreign company.

$PMRKTSK_i$  = percentage of the annual value of Spanish outward FDI in host country  $i$  that was in marketing and distribution.

$PFCTRSK_i$  = percentage of the annual value of Spanish outward FDI in host country  $i$  that was in sourcing of raw materials or in manufacturing production using Spanish technology.

$PASSTGDP_i$  = the ratio of the annual value of Spanish outward FDI in host country  $i$  that was either a joint-venture or an investment in production facilities that will use non-Spanish technology to

country  $i$ 's GDP.

$PMRKTGDP_i$  = the ratio of the annual value of Spanish outward FDI in host country  $i$  that was in marketing and distribution to country  $i$ 's GDP.

$PFCTRGP_i$  = the ratio of the annual value of Spanish outward FDI in host country  $i$  that was either in sourcing of raw material or in production facilities using Spanish technology to country  $i$ 's GDP.

$PANINV_{ikl}$  = percentage of the annual value of outward (inward) FDI that took place in (from) country  $i$  [or in industry  $k$ ].

$PGREEN_{ikl}$  = percentage of the annual value of outward (inward) FDI that took place in (from) country  $i$  [or in industry  $k$ ] that took the form of a new company or equity increase in an existing foreign company.

$PACQU_{i,kl}$  = percentage of the annual value of outward (inward) FDI that took place in (from) country  $i$  [or in industry  $k$ ] that took the form of purchase of an existing national company or a long term loan.

GDP = Gross Domestic Product, in million US\$ for 1990.

$GDPCAP = GDP/population$ .

SCI = number of scientists and engineers in the country, latest year.

$SCIGDP = SCI/GDP$ .

$SPTRADE = (EXPORTS_{Spain} + IMPORTS_{Spain})/(EXPORTS_i + IMPORTS_i)$ , for 1990, where the subscript  $i$  indicates the home or host country.

$SFDIGDP_i$  = ratio of Spanish FDI stock in host country  $i$  to country  $i$ 's GDP in 1986.

$WFDIGDP_i$  = ratio of worldwide FDI stock in host country  $i$  to country  $i$ 's GDP in 1990.

$OUTFDI_i$  = ratio of home country  $i$ 's stock of outward FDI to country  $i$ 's GDP in 1990.

The source for the variables above is United Nations, Statistical Yearbook, except for the values of FDI stocks that come from United Nations, World Investment Report, 1993 and from Dirección de

Transacciones Exteriores Censo de Inversiones Directas de España en el extranjero, 1989. The source for Spanish FDI inflow and outflows is the Spanish Economic Ministry, Dirección de Transacciones Exteriores.

$PRFRAT_k$  = the ratio of industry  $k$  real profits to its real production in 1990.

$PUBRAT_k$  = the ratio of industry  $k$  nominal expenditures in advertising to its nominal industry production in 1989.

$C10_k$  = ten firm concentration ratio in 1990, measured in terms of each firm's value of production.

$REVADV_k$  = revealed comparative advantage measured as the difference between industry  $k$  exports and imports as a ratio of the industry production in 1986.

The source for these variables is Instituto Nacional de Estadística, Encuesta Industrial and Fundación Empresa Pública, Programa de Investigaciones Económicas.

TABLE 1

## STOCKS OF FOREIGN DIRECT INVESTMENT (FDI) AND NUMBER OF LARGE FIRMS FOR SELECTED COUNTRIES

COUNTRY	Outward FDI % GDP 1990	Inward FDI % GDP 1990	Ratio of Outward-to-Inward FDI		Outward FDI Increase 1980-90	Inward FDI Increase 1980-90	Fortune Global 500 Firms	
			1980	1990			Industrial	Service
USA	7.8	7.2	2.65	1.09	1.96	4.76	159	136
Japan	6.9	1.2	0.53	5.85	12.22	1.10	135	140
Germany	10.1	8.0	1.18	1.27	3.51	3.27	32	43
France	9.2	7.2	1.04	1.27	4.67	3.83	26	29
Italy	5.1	5.3	0.78	0.97	8.05	6.52	7	15
UK	23.3	20.8	1.28	1.12	2.84	3.24	41	43
Spain	3.1	13.5	0.22	0.23	13.31	12.89	3	14
Ireland	.	11.5	.	.	.	1.33	0	0
Greece	.	21.1	.	.	.	3.10	0	0
Portugal	0.9	10.6	0.23	0.08	3.98	11.05	1	1
Korea <sup>a</sup>	0.9	2.2	0.12	0.40	15.30	4.76	12	3
Taiwan	8.2	6.2	0.04	1.32	132.90	4.05	1	1
China <sup>b</sup>	0.7	3.8	0.06	0.18	63.82	21.10	.	.
Argentina	.	6.2	.	.	.	1.64	1	0
Mexico	.	11.4	.	.	.	3.10	3	1
Brazil	0.5	7.8	0.04	0.06	3.68	2.12	1	2
Chile	0.6	22.2	0.05	0.03	4.24	6.97	0	0

Note: <sup>a</sup> Calculations based on outward stock for 1989; <sup>b</sup> Calculations based on outward stock for 1979 and inward stock for 1981.

Sources: United Nations Conference on Trade and Development, World Investment Report 1993 (New York: United Nations, 1993),

pp. 248-250; World Investment Report 1994 (New York: United Nations, 1994), pp. 415-420; Fortune (July 25, 1994, and August 22, 1994).

TABLE 2

TOTAL OUTWARD FDI BY PURPOSE AND COUNTRY OF DESTINATION<sup>a</sup>

	passtsk	pmrktsk	pfctrsk	passtgdp <sup>b</sup>	pmrktgdp <sup>b</sup>	pfctrgdp <sup>b</sup>
GDP	-.0006* .0003	-.000 .001	.001 .001			
GDPCAP	.355* .120	-.879* .337	.048 .226	-.004 .007	-.331** .055	-.027 .020
SCI	.002* .001	.001 .002	-.006** .001	.004** .001	-.020 .021	-.006 .007
SPTRADE	-1.824 3.009	5.928** 1.358	-3.195** 0.565	.516* .199	2.487* .957	.098 .355
WFDIGDP	.053 .118	-.338 .331	.136** .022	-.012 .007	-.099** .035	-.002 .013
SFDIGDP	-.005 .032	-.292** .090	.008 .060	.002 .002	.003 .010	.021** .004
OECD				1.150** .254	6.253** 1.221	.557** .453
LATIN				.129 .200	.805 .963	.103 .357
N. Obs.	167	167	167	167	167	167
Adj. R <sup>2</sup>	.06	.07	.18	.17	.17	.17

The standard errors are reported below the coefficient estimates.

\* Significant at the 5% level.

\*\* Significant at the 1% level.

<sup>a</sup> The dependent variable includes investments in all industries with that purpose.

TABLE 3

OUTWARD MANUFACTURING FDI BY FORM OF INVESTMENT AND INDUSTRY<sup>a</sup>

	total <sup>b</sup>	paninv	pgreen	pacqu
PRFRAT	5.911** 0.864	.483** .051	-.763 .462	.397 .332
PUBRAT	54.364** 19.647	.041** .012	-4.761 7.557	-3.094 8.775
C10	-0.286 0.632	-.028 .037	.444* .223	-.523 .328
REVADV	30.567 30.104	.021* .011	.070 .114	-.161 .137
N. Obs.	131	131	124	114
Adj. R <sup>2</sup>	.37	.57	.06	.10

The standard errors are reported below the coefficient estimates.

\* Significant at the 5% level.

\*\* Significant at the 1% level.

<sup>a</sup> Regressions include only observations with positive FDI and industry dummies.

<sup>b</sup> Regression also includes year dummies.

TABLE 4

## INWARD MANUFACTURING FDI BY FORM OF INVESTMENT AND COUNTRY OF ORIGIN

	total	paninv	pgreen	pacqu
GDP	.116** .022	.070** .011	-.046 .061	-.003 .064
GDPCAP	-38.744** 14.335	-.228* .075	-.949* .403	.854* .420
SPTRADE	.029* .257	.016* .007	-.040 .040	-.007 .040
SCI	-.562** .087	-.338** .046	.159 .244	.25 .25
OUTFDI	61.092** 9.794	36.883** 5.142	-46.035 27.555	2.242 28.662
OECD	90.429** 32.944	5.432** 1.730		
LATIN	13.261** 2.886	8.154* 1.515		
N. Obs.	132	132	132	132
Adj. R <sup>2</sup>	.42	.48	.21	.01

The standard errors are reported below the coefficient estimates.

· Significant at the 5% level.

\*\* Significant at the 1% level.



TABLE 5

INWARD MANUFACTURING FDI BY FORM OF INVESTMENT AND INDUSTRY<sup>a</sup>

	total <sup>b</sup>	perc	pgreen	pacqu
PRFRAT	.081 .311	.504* .025	-.108 .326	.258 .475
PUBRAT	19.656** 6.708	2.988** .829	-.181** .063	5.570 6.395
C10	-.202 .207	.038 .026	-.077 .198	-.507 .280
REVADV	17.613* 8.195	3.121** 1.269	-.077 8.889	-3.864 10.010
N. Obs.	148	148	143	133
Adj. R <sup>2</sup>	.48	.56	.17	.08

The standard errors are reported below the coefficient estimates.

\* Significant at the 5% level.

\*\* Significant at the 1% level.

<sup>a</sup> Regressions include only observations with positive FDI and industry dummies.

<sup>b</sup> Regression also includes year dummies.

TABLE 6

## INTERNALIZATION ADVANTAGES OF SPANISH FIRMS

## A. Ownership of subsidiaries

<u>Country or area:</u>	<u>Authorized outward FDI 1975-1978</u>		<u>Benchmark Survey of FDI Stocks 1986</u>	
	<u>Number of subsidiaries</u>	<u>Majority owned</u>	<u>Number of subsidiaries</u>	<u>Majority owned</u>
EU	296	21.6%	946	72.3%
USA	60	18.3%	223	74.4%
Japan	.	.	18	88.9%
OECD	.	.	1332	73.0%
Latin America	382	64.9%	703	51.5%
Asia	.	.	84	71.4%
Africa	.	.	153	38.6%
Total	962	45.3%	2434	65.0%

Note: For 1975-1978 includes the USA includes Canada.

Sources: Nuevo Iniesta et al. (1981:106); Secretaría de Estado de Comercio (1989:107-114).

## B. Use of proprietary distribution for export by country or area, 1986 and 1992.

<u>Country or area:</u>	<u>Exports through proprietary distribution channels as a % of total Spanish exports in:</u>	
	<u>1986</u>	<u>1992</u>
EU	7.6	.
USA	14.1	.
Japan	1.3	.
OECD	7.7	.
Latin America	14.5	.
Asia	2.7	.
Africa	2.8	.
Total	7.3	14.8

Note: The numerator includes Spanish owned firms for 1986 (n=1544), and for 1992 Spanish firms with no foreign capital or less than 75% participation (n=1072).

Sources: Secretaría de Estado de Comercio (1989:225-232); ICEX 1992 Survey of Exporters (n=2041).

## C. Use of proprietary distribution for export by type of firm in 1992.

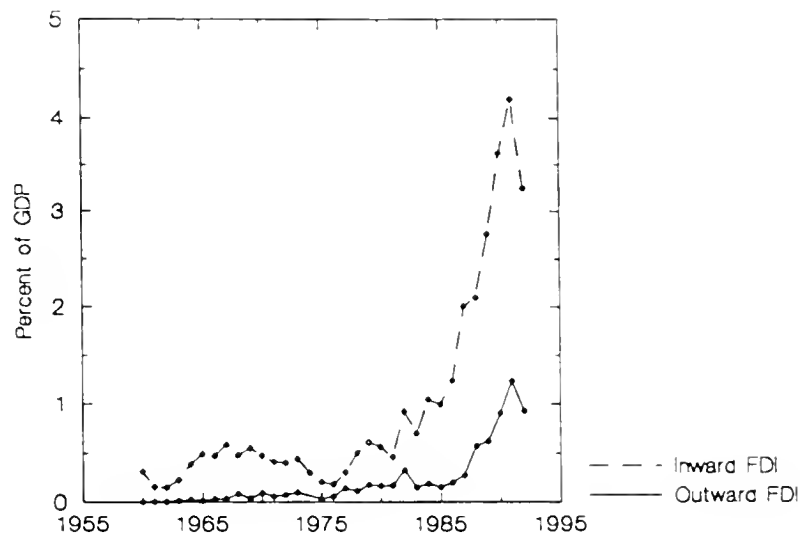
<u>Type of Firm:</u>	<u>No. of firms</u>	<u>% of all exports</u>	<u>% of exports through proprietary distribution</u>	
			<u>mean</u>	<u>std dev.</u>
With proprietary distribution	192	62.3	60.9	33.5
Without proprietary distribution	880	37.7	0.0	0.0
All firms	1072	100.0	23.0	36.0

Note: Sample includes Spanish firms with no foreign capital or less than 75% participation.

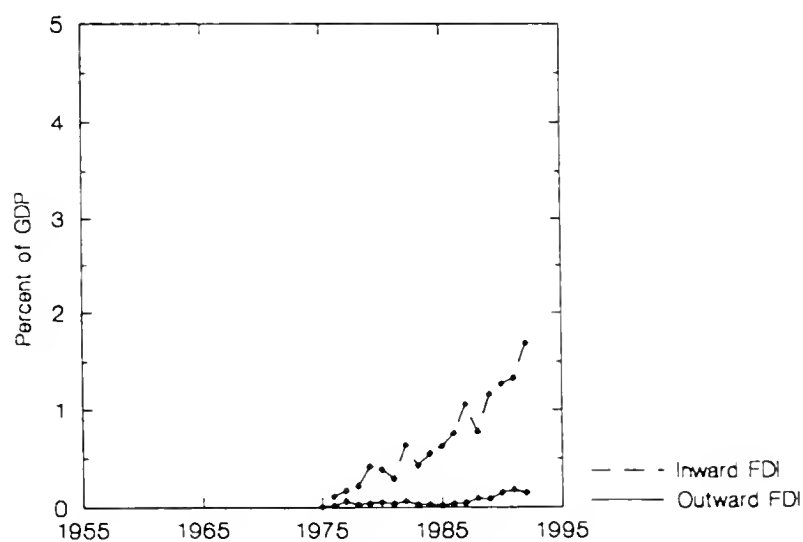
Source: ICEX 1992 Survey of Exporters.

Figure 1

Foreign Direct Investment in Spain, 1960-1992



Manufacturing Foreign Direct Investment

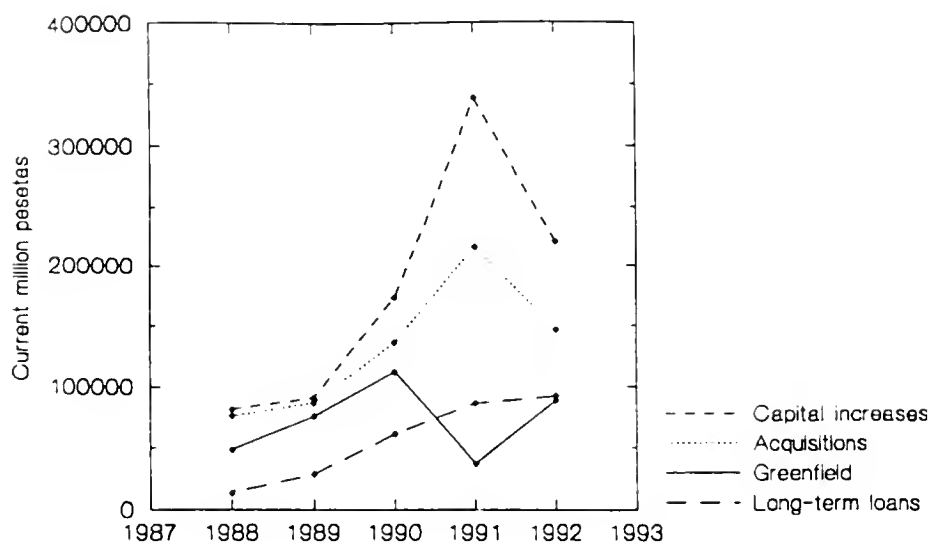


Source:

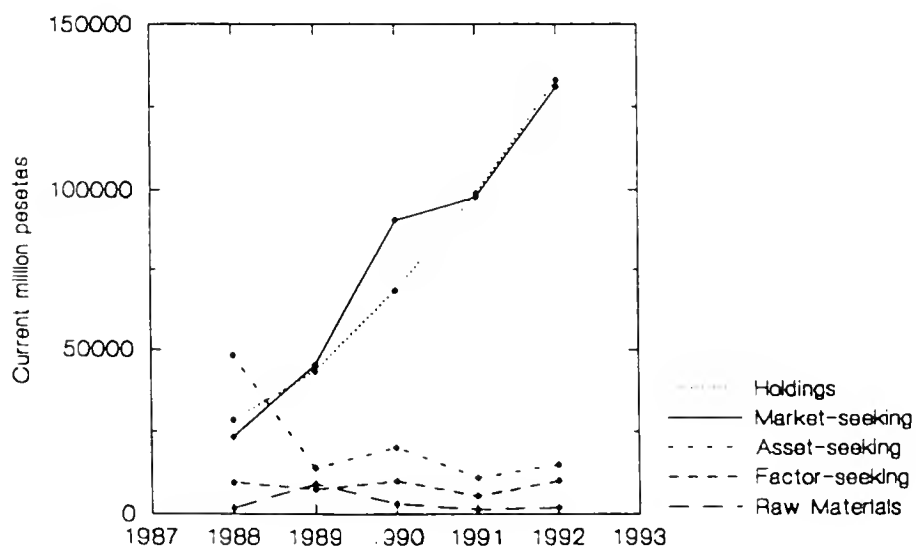
Moreno Moré (1975):92, 95; Aguilar (1985):65-66; Ministerio de Comercio (1993):226-227, 231; Durán and Herrera (1984):381-382; Muñoz et al. (1978):68.

Figure 2

## Outward FDI by Mode, 1988-1992



## Outward FDI by Goal



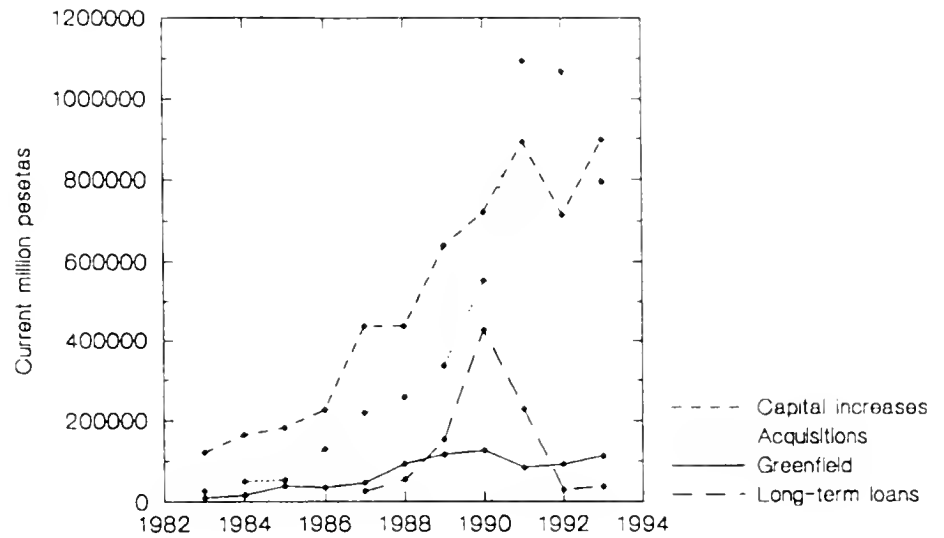
Source: Dirección General de Transacciones Exteriores, Ministerio de Economía y Hacienda.



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Figure 3

Inward FDI by Mode, 1983-1993\*

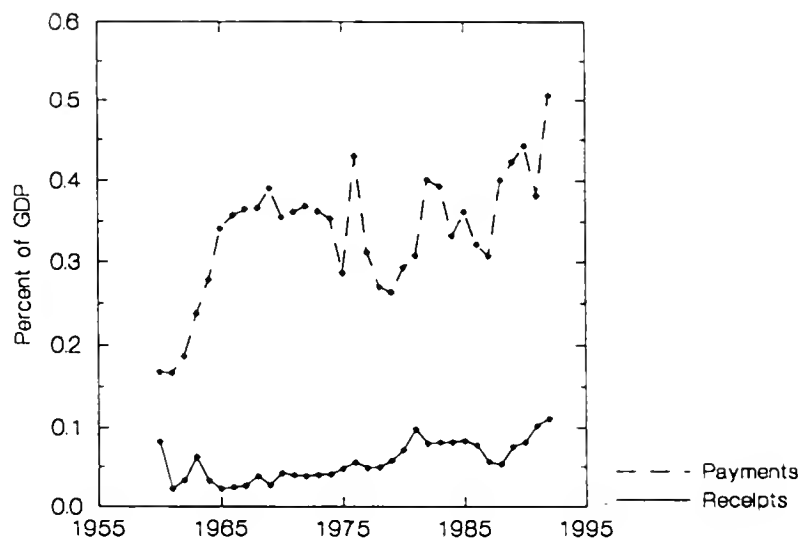


\*Data for 1984 refer to January-November only.

Source: Boletín Económico de ICE, several issues.

Figure 4

## Receipts and Payments for Patents, Royalties and Fees



Source: Ministerio de Comercio, Balanza de pagos de España; Banco de España, Balanza de pagos, several issues.



Date Due

Lib-26-67





